



Hawaiian Monk Seal Research Program: Challenges and Summary

**NOAA Fisheries Science Program Reviews
2015 Protected Species Science**

Charles Littnan

Hawaiian Monk Seal Research Program: Unique Mission

- Unusual Research - Conservation - Response Activities
- Evidence-based conservation activities built on strong data foundation
- Conservation situation is dynamic so program needs to remain flexible



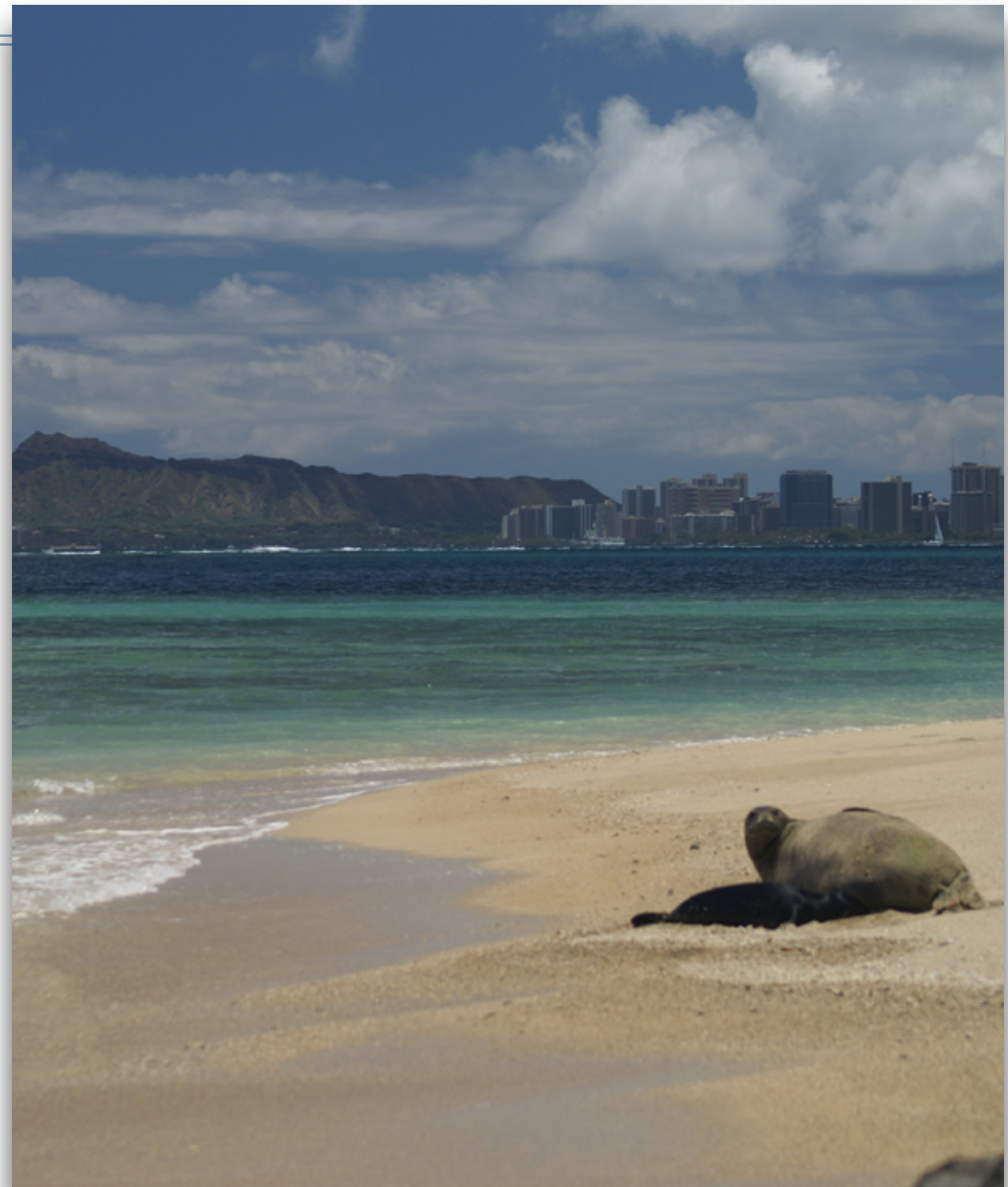
Current and planned protected species scientific activities fulfill mandates and requirements under the ESA and MMPA?

- Well defined recovery objectives and roadmap to follow in Recovery Plan for the Hawaiian Monk Seal
- MHI Management Plan soon to be released; insight into management science needs in MHI
- Virtually all activities directly support stock assessment and/or recovery mandates



Research and Conservation Collaborations that are in place effective? What other opportunities should be pursued?

- Numerous external partnerships for research and recovery activities
- Currently working on developing collaborations with external NGO's w/ associated funding
- Greater collaboration with partner agencies in the NWHI could potentially offset some costs
- Working to establish collaboration with fishing communities/industry
- ESA Section 6 funds could potentially support science initiatives



Are the protected species scientific objectives adequate to meet the long-term and short-term goals?

- Stock assessment requirements/ goals fulfilled
- Set to address most immediate research questions (e.g. fisheries interactions) and recovery activities
- Developing plans for long-term goals addressing climate change impacts, increasing population in MHI etc.
- **Concern:** But quality of assessment is changing and vulnerable
- **Concerns:** Collaborations may be hard to establish. May be vulnerable in the long-term without consistent effort in field
- **Concern:** This will require some combination of increased resources and stopping other work to address them adequately

Are the protected species studies being conducted properly (survey design, statistical rigor, standardization, integrity, peer review, transparency, confidentiality, etc.)?

- Regularly utilizes external review for Program refinement/endorsement
- Attempt to conduct studies with adequate robustness and measure impacts of interventions
- Transparency is a priority for the Program
- **Examples:** Program reviews (health and disease, foraging, etc.), Enhancement (translocations, vaccination, captive breeding)
- **Concern:** Difficult to do due to small sample size, spatial/temporal variability, or nature of recovery activity
- **Examples:** Social media, popular media, scientific papers, technical memos, public presentations

Are advances in protected species science and methodological approaches being incorporated into PIFSC research? Is PIFSC active in advancing protected species science? Are these advances communicated and applied in NMFS broadly?

- Constantly seeking out **relevant** new techniques and partnerships to apply them
- Disseminate our findings and protocols through a variety of forums
- HMSRP is sought out by international community for some conservation/research questions
- **Examples:** Fatty acid analyses, technological advances, vaccination collaboration, health and disease support, genomics/genetics, more.
- **Examples:** Mediterranean monk seal, New Zealand sea lion

Other General Concerns

- Data management and accessibility: increase infrastructure and procedures to adhere to policies —> more resources
- NOAA vessel support: consider alternative strategies to access NWHI (charters, etc.) —> more resources



Questions?

